

Appl. No. : 10/009,792
Filed : December 13, 2001

REMARKS

This is in response to the Restriction Requirement mailed May 7, 2004. Claims 1-10 are pending and are subject to restriction. The Examiner has restricted the claims into two groups: Group I (Claim 1, 2, and 7-10) and Group II (Claims 3 -6). The Examiner alleges that Group I is drawn to a recombinant plasmid vector comprising a nucleotide sequence encoding an oligopeptide having SEQ ID NO: 28 and a hG-CSF gene and a process of using the vector. The Examiner further alleges that Group II is drawn to a recombinant plasmid vector comprising a modified nucleotide sequence encoding an oligopeptide of SEQ. ID NO: 1. Applicants respectfully traverse for the reasons set forth below.

Applicants have amended claims 1-3 in order to restate the invention in more explicit terms. Claim 1 has been amended to add “a nucleotide sequence coding for” for clarification. Claim 2 has been amended to clarify that the protease target sequence IEGR of SEQ ID NO. 28 is present within the oligopeptide of Claim 1. Claim 3 has been amended to explicitly state that SEQ ID NO:26 codes for SEQ ID NO: 1 as well as two other structural elements. Support for the language “mature” before hg-CSF in Claim 3 can be found, for example, on page 10, lines 12-15 of the published application. The amendments are supported by the application as filed, as can be seen for example, in Example 1 through 7 (Page 8, line 15 through page 17, line 34).

Applicants respectfully point out that SEQ ID NO:1 codes for the two specific structural elements: a specific His tag sequence (AGPHHHHHH) and a specific protease target sequence for Factor X (IEGR). SEQ ID. NO: 1 thus contains 13 amino acids. SEG ID NO: 28 codes for a single structural element; the same specific protease target sequence from SEQ ID NO: 1 (IEGR). SEQ ID NO: 26 codes for the same two structural elements of SEQ ID NO: 1 and thus codes for SEQ ID NO: 28; that is the specific HIS tag and the specific protease target sequence discussed above. In addition SEQ ID NO: 26 codes for two additional structural elements – an endoxylanase signal sequence and the N-terminal portion of the mature hG-CSF polypeptide. In summary, SEQ ID NO: 28 is contained in SEQ ID NO: 1. SEQ ID NO: 26 in turn is the DNA that codes for the two oligopeptide structural elements in SEQ ID NO: 1.

Claims 1, 2 and 3 are directed to recombinant plasmid vectors. Claims 1 and 3 are independent, and claim 2 depends on claim 1. Claim 1 calls for five structural elements: (1) a

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kanamycin resistance gene; (2) a promoter; (3) an endoxylanase signal sequence; (4) a nucleotide sequence coding for an oligopeptide consisting of 13 amino acids including 6 consecutive histidine residues; and (5) a human granulocyte stimulating factor (hG-CSF) gene. Claim 2 adds the 6th element of the protease target sequence of SEQ ID NO: 28 with element (4) of claim 1. For the purpose of this discussion, Applicants will refer to the recombinant plasmid vector of formed from the combination of the structural elements of claims 1 and 2 as the "Group I Plasmid." Claim 3 calls for the same elements of the Group I Plasmid; but is more specific regarding some of the elements. Thus, claim 3 calls for element (1) of the Group I Plasmid; a specific form of element (2) of Group I Plasmid; a specific form of element (3) of Group I Plasmid (contained in SEQ ID NO: 26); a specific form of elements 4 and 6 of the Group I Plasmid (contained in SEQ ID NO: 1, which is in turn coded for by SEQ ID NO: 26); and a modified form of element (5) (again as coded for by SEQ ID NO: 26). In light of these facts, applicants respectfully submit that Groups I and II have significant common structural features and thus possess unity of invention. Applicants respectfully request that the restriction requirement be withdrawn, and the application be allowed.

In order to comply with the requirements of 37 CFR 1.143, Applicants elect Group II, corresponding to Claims 3-6, with traverse.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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